Date: 06/24/98
Subject: CASTEX SYSTEMS REMOVAL, Jennings, Jefferson Davis Parish, LA
From: Mike Ryan, OSC, U.S. EPA, Region 6 (214/665-2273)
To: Director, OERR
Charles A. Gazda, RPB, EPA Region 6
Secretary, Louisiana Department of Environmental Quality (LDEQ)
Case Officer, USCG NPFC, Central and Gulf Region Team
Commanding Officer, USCG-D8(m)
Commanding Officer, USCG Gulf Strike Team

POLREP NO: 16

Event: Removal Action
Site ID#: Z663 (FPN 08-6-144)
Start Date: 08/19/96
Demobilization Date: N/A
Completion Date: N/A
Site Type: Inactive NOW Facility
Site Latitude/Longitude: 30° 11' 20" North, 92° 36' 55" West

I. SITUATION

A. Site description

The Castex System Site is a nonhazardous oil-field waste (NOW) disposal facility that was abandoned in 1989 shortly after a fire and catastrophic failure of the produced water storage tank battery. The site is located approximately three miles southeast of Jennings, Jefferson Davis Parish, Louisiana. The facility is in a rural area and is situated adjacent to a marsh and one mile west of the Mermentau River.

B. Description of threat

Approximately 9,700 barrels (bbls) of NOW fluids are contained in 19 aboveground storage tanks (ASTs), varying in condition from fair to poor. The failed storage tanks contained naturally occurring radioactive material (NORM) sediments that were spilled into the containment basin and mixed with oily sludge. The containment basin has been breached on the south side and is releasing oily water and NORM sediments into the marsh. The marsh flows into the Mermentau River, which flows through Grand Lake to the Gulf of Mexico. The facility also has eleven waste management units (WMUs) that contain approximately 20,400 bbls of oil-based material,

96,319 bbls of salt-base material, and 17,100 bbls of rainwater.

Chemicals of concern are barium, arsenic, benzene, crude oil waste, and NORM.

C. Preliminary Assessment Results

Air monitoring around the ASTs and WMUs for volatile organic compounds (VOCs), percent oxygen, and the percent lower explosive limit (LEL) indicated no readings significantly different from background. The soil in the primary containment basin has readings of 500 microRoentgen/hour (uR/hr), according to a 1995 LDNR survey, which qualifies the material as NORM by Louisiana regulations.

Preliminary results of EPA analytical data indicate that no area composite sample exceeded RCRA regulatory limits for TCLP Metals or Pesticides/PCBs. Analysis of AREA-J composite sample indicated 37 picoCuries/gram (pC/g) for Radium 226 and 15 pC/g for Radium 228. Analysis of the composite sample of tanks T11-T14 indicated 35 pC/g for Radium 226 and 16 pC/g for Radium 228. Analysis of AREA-Q composite sample indicated 4.2 pC/g for Radium 226 and 3.0 pC/g for Radium 228.

D. Site History/Background

Historical actions taken: The Louisiana Department of Natural Resources (LDNR) permitted the facility to begin disposal of NOW material in September of 1982. The facility accepted oil- and water- based drilling mud, drill cuttings, produced saltwater, and oily water. Saltwater was injected into the saltwater disposal (SWD) well and solids were stockpiled in WMUs for treatment. The LDNR ordered the facility closed in August of 1989, based on violations of Statewide Order No. 29-B, by Administrative Order No. UIC 89-2. The LDNR requested assistance from EPA Region 6 ERB in May of 1996.

II. SITE INFORMATION

A. Site Activities to Date

1. Initial Removal Action (July 23 through September 26, 1996)

Initial removal actions can be referenced in POLREPs 1 through 7.

2. Second Removal Action

For removal activities conducted up to June 16, 1998, see POLREPs 8 through 15.

CET continues the excavation of WMU H to approximately six to ten feet. The contaminated material (drilling mud/soil/sand) is being stockpiled in Areas O and P. CET completed a roadway of limestone and gravel, running north of and parallel to the access road, to aid in the transportation of the stockpiled material off site.

CET also completed the removal of material, and the dismantlement and disposal of all ASTs and box tanks (TBs) remaining on site; except TB7, which is an underground TB that will be back filled at a later date. Non-contaminated scrap metal was transported to LaRose Scrap & Salvage, Inc., in Intracoastal City, Louisiana, for recycling.

All metal cut from ASTs T10 through T14 was checked for NORM contamination by the Radiation Safety Officer (RSO). Contaminated metal was transported to the Growth Resources, Inc., (GRI) facility in Gibson, LA for decontamination. The decontaminated metal will be sent for scrap, and the removed NORM held at the GRI facility until disposal is arranged.

The RSO conducted a NORM survey of the surface in and around Area J. Results were as follows: 40-450 uR/hr detected within the tank berm area; 10-40 uR/hr detected outside the berm within 30 feet - the highest readings being those taken near the breech in the southern portion of the containment berm; and readings as high as 110 uR/hr were detected on the berm itself.

The subsurface portion of the NORM survey is in progress. A total of forty-seven soil borings, between 3½ and 5 feet deep, have been made in and around Area J. Readings were recorded at each six-inch depth interval; results show that the NORM contamination is up to twenty-four inches deep. Approximately forty soil samples have been collected and analyzed from in and around Area J, based on bore hole readings. Samples were collected at 0-6" and 6-12" depths. Results are currently being tabulated to determine radium activity and waste volumes.

Due to the amendment to Statewide Order No. 29-B (emergency rule), additional sampling of the WMUs and tank sludge and analysis of these samples for TCLP volatile and semi-volatile organic compounds was to be required for NOW disposed of after May 1, 1998. As the elevated organic fractions of the NOW material on site have been disposed of, EPA OSC Mike Ryan requested an exemption from the aforementioned analyses for the remaining NOW material on site that would be required for disposal under this emergency rule. This exemption was received on May 7, 1998, from the Commissioner of the Office of Conservation, Warren Fleet, through Director of the Injection and Mining Division, Carroll D. Wascom.

EPA contacted LDEQ Water Quality Surveillance Program Manager, Chris Peiller, to establish water quality parameters for on-site treatment/discharge of rainwater accumulated in WMUs A through D.

EPA also contacted LDNR representative, Pierre Catrou, regarding the resampling of WMUs A and B, for pH, and oil and grease analysis, respectively. WMUs A and B have been resampled by START; and the samples shipped off-site for analysis to an LDNR contracted laboratory. Results were reported as follows: WMU A soil pH=6; WMU A water pH=8; and WMU B soil oil and grease 0.5 mg/kg. Based on the analytical results, it was determined that WMU B meets Statewide Order 29B closure criteria; and WMU A soil will be treated on-site to adjust/increase the pH to meet closure requirements.

B. Next Steps:

EPA will continue to coordinate with LDEQ and LDNR for state removal requirements. RFPs are also being prepared for NOW and NORM waste disposal based on EPA, LDNR, and GRI analytical data. Final disposition of NORM will depend on disposal analytical results. Final disposition of NOW material will depend on LDNR's agreement of proposed EPA removal actions.

C. Key Issues:

Deed and Title Search and Review is on-going to determine current status of PRPs for enforcement action and cost recovery through the fund center.

III. PROPOSED ACTIONS

Excavation of NOW solids and disposal of same at a state permitted facility. Excavation of NORM contaminated material and disposal of same at a state permitted facility. Plug and Abandon (P&A) the SWD well and restore site to grade.

IV. COST INFORMATION

1. Initial Removal Action (July 23 through September 26, 1996)

SITE TOTAL (July 23 through September 26, 1996): $133,946.52

Itemized cost information for the initial removal action can be referenced in POLREPs 1 through 7.

2. Second Removal Action (March 10 through COB June 22, 1998)

Contractor (CET):	$900,000	
Personnel		$164,006.50
Equipment		$ 4,443.95
Other		$508,154.54
Contractor Total: $676,604.99		
Government:	$100,000	
EPA		$ 25,408.00
USCG-GST		$ 26,905.34
START		$ 23,151.00
Government Total		$ 76,990.52
SITE TOTAL (March 10 through COB June 22, 1998):		$753,595.51

COMBINED SITE TOTAL: $887,542.03

V. DISPOSITION OF MATERIAL

SCRAP METAL: 73.48 tons of scrap metal have been transported to LaRose Scrap and Salvage, In c., in Broussard, LA.

NORM WASTE: 100,000 pounds of NORM contaminated steel, i.e. > 20 uR/hr, have been transported to the GRI facility in Gibson, LA; and 1,260 barrels (bbls) of NORM contaminated tank bottom sludge, i.e. > 30 pCi/g, have been transported to the LOTUS L.L.C. facility in Andrews, TX.

NOW WASTE: 3,055 bbl tank sludge, 1,800 bbl salt water, and 110 bbl washout water have been transported to US Liquids, in Jennings, LA.

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START PM: Will Farrar